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## United States Department of Agriculture,

BUREAU OF PLANT INDUSTRY.

Seed Distribution.

WASHINGTON, D. C.

### BERMUDA GRASS.

DESCRIPTION.

Bermuda grass (Cynodon dactylon) is known locally in many parts of the South as "wire-grass," in the Southwest as "devil grass," in the West Indies as "scutch," and in India as "doob-grass." It is a low-growing, profusely branched, creeping perennial, with aggressive runners or rootstocks and short, narrow leaves. It rarely grows more than 18 inches high, except in the most favorable locations, and produces seed in quantity only in the extreme Southwest. Being a distinctly summer grass, it requires warm weather for its best development and ceases growth when subjected even to very light frost. Bermuda grass is somewhat variable in its leaf and stem characters, but there have been no commercial varieties developed. It is supposed to be a native of India and to have been introduced into the Atlantic States, in ships' ballast or as packing for crockery, about 1812.

#### VALUE.

Since its introduction this grass has spread with great rapidity over the Southern States, and it is now the principal summer pasture grass of Georgia, Florida, Alabama, Mississippi, Louisiana, Arkansas, and the eastern portion of Texas. It extends northward along the Atlantic coast to the latitude of Washington, D. C. Even in the latitude of Washington it winterkills to a considerable extent, but a sufficient number of roots survive to perpetuate the grass abundantly. In parts of Virginia and Maryland, and in fact in other sections, it is considered a noxious weed. It thrives on overflowed land and will survive submergence even for considerable periods. Bermuda grass, strictly speaking, is the turf grass of the South, and by far the best general-purpose lawn grass for that region. Its color is not as pleas-

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ing as that of Kentucky bluegrass, the bent grasses, or the fescues, but its aggressiveness and ability to form a thick turf to the exclusion of weeds make it very desirable. One objection to it as a lawn grass is its susceptibility to frost. In the northern part of its range this objection is quite serious, since the grass remains brown for several months during the autumn, winter, and early spring. It has the very valuable characteristic of being adapted to a wide range of soils, varying from sand to heavy clay. It seems to do best, however, on loose, loamy soils, where moisture is fairly abundant.

#### CULTURE.

There are two very satisfactory methods of propagating Bermuda grass: (1) By pieces of sod, or runners, and (2) by seed. Until recently the vegetable method has been more popular than seeding, largely on account of the high price of seed. In preparing a lawn for Bermuda grass it is advisable to employ as thorough methods as where the area is intended for less aggressive species. The soil should be plowed or spaded thoroughly, and if possible an application of well-rotted stable manure should be incorporated with the soil some time prior to seeding. The seed can be sown in the late winter or early spring at the rate of about one-half pound per 1,000 square feet. For ordinary field seed a much smaller quantity is generally recommended. The seed should be distributed evenly and covered with a rake or weeder, depending upon the size of the lawn. If pieces of sod are used for propagation they can best be prepared by cutting with an ensilage cutter or similar implement, if available. The small pieces of sod can be placed in hills, preferably not more than 2 feet apart each way for a lawn. In a comparatively short time the small pieces of sod develop and cover the ground thoroughly.

It is quite advisable when either seeding or planting Bermuda grass to use also a small quantity of Italian rye-grass seed. If the Bermuda grass is seeded, the rye-grass seed can be mixed with the seed of the former at the rate of about 2 pounds per 1,000 square feet. Italian rye-grass develops quickly after seeding and makes a very nice lawn until the Bermuda grass becomes well established. Bermuda grass ultimately crowds out the Italian rye-grass without difficulty. This combination is also valuable for extending the lawn's period of growth and greenness. If the rye-grass is seeded on the lawn at about the time of the first frost, it will produce a green covering during the period that the Bermuda grass is dormant. It is necessary, of course, to repeat this operation every year, as the rye-grass is, strictly speaking, an annual species. The best results are obtained by scratching the sod thoroughly at the time of seeding or by using a seeder that cuts the sod by means of small disks. The

Bermuda grass-Italian rye-grass mixture should be tried by all means if a sightly lawn is desired during the winter months.

There are several fertilizers that can be used on a Bermuda grass lawn, but the most convenient, and perhaps the best one from every standpoint, is bone meal. This fertilizer, applied at the rate of 6 to 8 pounds for each 1,000 square feet in the early spring, and again at the beginning of summer, will keep the lawn in a healthy, vigorous condition.

#### SEED.

Since the development of the Bermuda grass seed industry in Arizona and other parts of the extreme Southwest, good seed can now be obtained without difficulty at from 30 to 50 cents per pound. It is believed that domestic-grown seed is superior in general to that produced in Australia and other foreign countries. The accompanying package contains American grown Bermuda grass seed.

#### PUBLICATION AVAILABLE.

For further details regarding Bermuda grass, see Farmers' Bulletin 814, entitled "Bermuda Grass."

Approved:

WM. A. TAYLOR,

Chief of Bureau.

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